Cancer Incidence in New Jersey 1995 -1999

Implementation of the Year 2000 Population Standard

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INTRODUCTION

This report presents statewide, age-adjusted incidence rates for all cancers diagnosed among New Jersey residents during the period 1995-1999 and comparisons of state and national data for 1994-1998. The incidence data for 1999 should be considered preliminary.

The primary goal of this report is to provide 1995-1999 data to health planners, researchers and the public. Data are provided statewide for four population subgroups: white males, white females, black males, and black females. Rates are also provided by gender for all races combined.

Beginning with 1999 health events (e.g. cancer diagnoses), the U.S. Department of Health and Human Services requires that state and federal agencies use a new population standard for age-adjustment of disease rates. The secondary goal of this report is to illustrate the effects on incidence rates in New Jersey when using the Year 2000 U.S. Population Standard for age-adjustment. A discussion of this issue is presented along with 1999 New Jersey cancer incidence rates age-adjusted to the 1970 and 2000 U.S. Population Standards.

A prior incidence report was issued in December 2000 and presented New Jersey cancer incidence and mortality data for the years 1994-1998.

REGISTRY OVERVIEW

This publication is based on incidence data reported to the New Jersey State Cancer Registry (NJSCR). The NJSCR was established by legislation (NJSA 26:2-104 et seq.) as a population-based incidence registry and includes all cancer cases diagnosed among New Jersey residents since October 1, 1978. The NJSCR serves the entire State of New Jersey, with a population of approximately 8.4 million people.

New Jersey regulations (NJAC 8:57-A) require the reporting of all newly diagnosed cancer cases to the Registry within three months of hospital discharge or six months of diagnosis (whichever is sooner). All primary malignant and *in situ* neoplasms are reportable to the NJSCR, except certain carcinomas of the skin. Additionally, beginning with the 1995 diagnosis year, cancer *in situ* of the cervix was no longer reportable based on recommendations by a New Jersey panel of experts and the North American Association of Central Cancer Registries (NAACCR). Reports are filed by hospitals, diagnosing physicians, dentists and independent clinical laboratories. In addition, reporting agreements are maintained with New York, Pennsylvania, Delaware, Florida, and Maryland so that we may collect reports of cancer among New Jersey residents diagnosed with cancer in health care facilities outside the state. Legislation in 1996 strengthened the Registry by (1) requiring electronic reporting, (2) requiring abstracting by certified tumor registrars, and (3) establishing penalties for late or incomplete reporting.

The information collected by the NJSCR includes demographic characteristics of the patient, and medical information on each cancer (such as anatomic site, histologic type and summary stage of disease and annual follow-up status (alive/dead). These data, along with the underlying cause of death (if the patient is deceased) are incorporated into the basic data set.

For each year, the age-adjusted incidence rate per 100,000 population is given for 63 categories of cancer sites and for all sites combined. For females, breast cancer *in situ* statistics are given but not included in the totals for all sites combined (as is standard practice for publication of cancer rates in the United States). Compared to preliminary data for 1998 published in our last report, 1998 incidence rates in this report for all cancers combined increased by 1.9% for males and 1.7% for females. The 1999 data presented here are preliminary and rates may increase by the time all data are complete. In viewing the tables of this report, it should also be noted that the annual rates for relatively uncommon cancers tend to fluctuate more from year to year, due to small numbers of cases, particularly in minority populations. It should also be noted that minor fluctuations might be seen from previous incidence reports due to ongoing editing and review of the data.

SUMMARY OF NEW JERSEY CANCER INCIDENCE DATA, 1995-1999

(*Standardized to U.S. 1970 Population*)

Overall age-adjusted cancer incidence rates have increased for males through 1997 and for females for the full five-year period. The overall incidence rates decreased steadily for black males, the subgroup, which for many years has had the highest rates. Lung cancer incidence rates for males appear stable through 1998. For females, lung cancer incidence rates also appear stable but are still part of an increasing trend. Prostate cancer rates increased through 1997 and are now starting to decline, possibly reflecting the last phase of the typical pattern seen following the introduction of a widespread screening program. Invasive breast cancer incidence rates also increased through 1997 and now appear to be declining. Consistent with continued improvements in screening and early detection, *in situ* breast cancer rates are still on the rise. Incidence rates for colon cancer have been fairly stable for both males and females.

The rise in non-Hodgkin's lymphoma incidence is still seen during these years among females, while malignant melanoma increases are apparent through 1997 among males. Incidence of these cancers has been increasing for the U.S. as a whole during the past decade. While overall patterns in New Jersey continued to approximate those for the entire nation, incidence rates during 1994-1998 continued to exceed those of the U.S. as published in *Cancer in North America, 1994-1998*.

New Jersey Cancer Incidence Rates by Gender & Race, 1995-1999

A total of 42,476 cases of invasive cancer diagnosed in 1999 among New Jersey residents were reported to the NJSCR. During the period 1995-1999, a total of 214,971 cases of invasive cancer were diagnosed among New Jersey residents, 51% among males and 49% among females.

Tables 1 through 6 display the total counts of all newly diagnosed cases of cancer in New Jersey and the age-adjusted incidence rates by race and gender for the period 1995 through 1999. In the paragraphs below, we note the most striking patterns indicated in these tables according to gender and the largest racial subgroups also taking into account fluctuations and trends in incidence data for years prior to 1995. Incidence data for years prior to 1995 can be viewed on the NJDHSS website, www.state.nj.us/health and can also be found in our previous cancer incidence reports.

Males (Tables 1, 3, & 5): During the years 1995-1999, the overall cancer incidence rate increased through 1997 for white males and has continuously declined for black males. Lung cancer incidence rates appear stable among all males combined and among white males during this period although preliminary rates for 1999 appear to revive the downward trend. Prostate cancer rates rose among both whites and blacks through 1997. Incidence rates for cancer of the small intestine also increased slightly. Incidence rates for laryngeal cancer have decreased, especially for white males. Regarding the two cancer sites with the most marked national increases in recent years, rates for non-Hodgkin's lymphoma among all males seem to be leveling off while malignant melanoma of the skin among white males continued to increase through 1997.

Females (Tables 2, 4 & 6): The overall cancer incidence rate for females increased. Similar to the pattern for males, incidence rates of lung cancer appear stable during 1995-1999 overall. Declines continued to be seen for invasive cervical cancer especially among black women. *In situ* breast cancer rates rose markedly during these years, indicating increased rates of screening. Invasive breast cancer incidence rates rose slightly through 1997 especially for white women, and non-Hodgkin's lymphoma and malignant melanoma of the skin increased through 1997 as well. For white females, the incidence of cancers of the uterine corpus and the vulva increased slightly and incidence rates for thyroid cancer also increased during these years.

Comparison of Cancer Incidence Data for New Jersey with the United States, 1994-1998

When comparing rates between areas or over time, it is important to use rates that are adjusted or weighted to a common standard. In these tables, as has been the recent general practice in this country, we have presented rates adjusted to the 1970 U.S. population. Using this standard, along with the Surveillance, Epidemiology, and End Results (SEER) multiple primary rules, makes it possible to compare New Jersey age-adjusted rates to rates published by NAACCR in *Cancer in North America*. The most recent detailed data available from NAACCR are for 1994-1998 and we present comparison tables for major sites for this time period.

Tables 7 and 8 show the comparable incidence rates for the three most common sites of cancer for males and for females, as well as the comparable rates for melanoma, non-Hodgkin's lymphoma, and for all cancer sites combined. Historically, New Jersey rates have been representative of the Northeast region, which tends to have higher cancer incidence rates than the U.S. as a whole.

For males (Table 7) all races combined, total cancer incidence rates were higher in New Jersey than the U.S. during the period 1994-1998. The incidence rates for colorectal and prostate cancers and non-Hodgkin's lymphoma were higher than those for the total U.S. Lung cancer rates were lower in New Jersey compared to the nation. Melanoma incidence rates for the U.S. and New Jersey were similar.

For females (Table 8), New Jersey had higher incidence rates than the U.S. during the period 1994-1998 for total cancers, lung and colorectal cancers and non-Hodgkin's lymphoma. New Jersey's black females had similar breast cancer rates to the U.S., while white females in New Jersey had higher rates. Melanoma incidence rates for New Jersey females and the U.S. were similar.

IMPLEMENTATION OF THE YEAR 2000 STANDARD IN NEW JERSEY: A Change in the Way Disease Rates Are Reported Beginning with 1999 Data

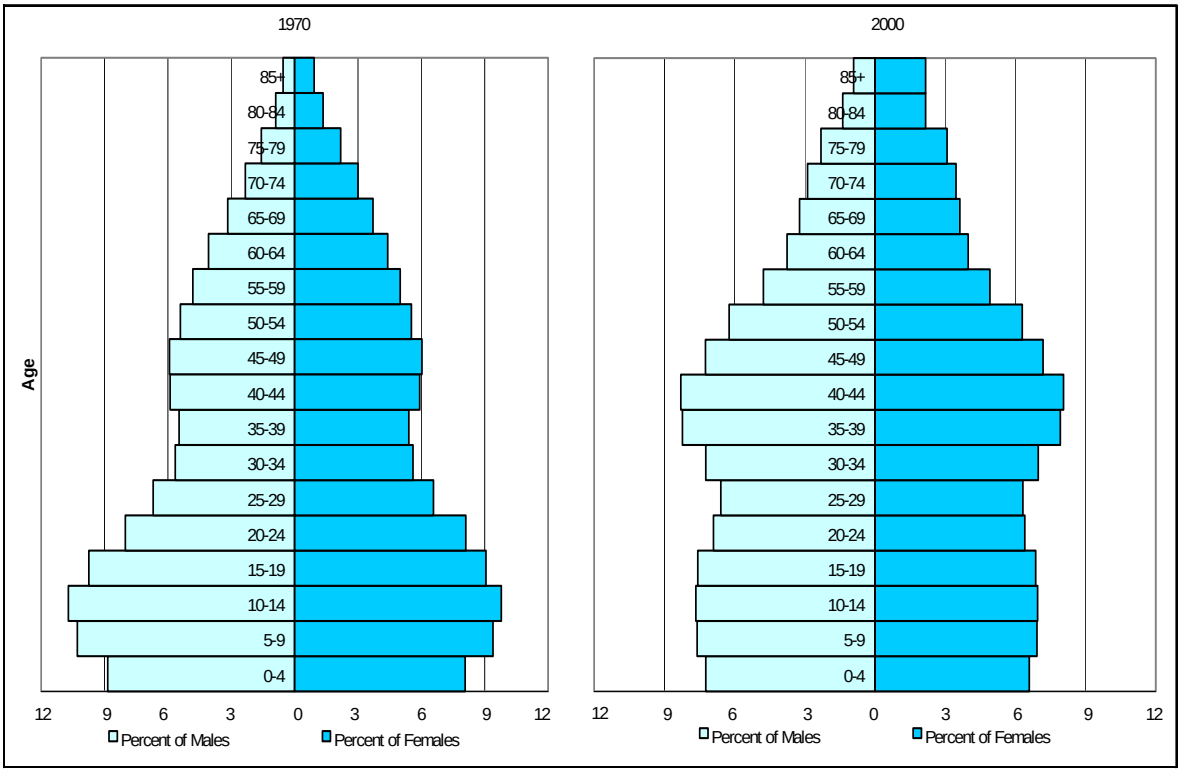
Age-adjusted rates

As described above, statisticians use the technique of age-adjustment in calculating rates of disease to permit comparison across different geographic areas or populations. This technique takes the age structure of the underlying population into account when reporting rates. The adjusted rates function as an index so that cancer rates can be compared despite differences in the populations.

The U.S. Department of Health and Human Services requires that, beginning with 1999 reporting year, health data should be age-adjusted using the U.S. Year 2000 population as a standard. Until now, various federal and state agencies have calculated disease rates using different U.S. population standards, including the 1940 and 1970 populations.

Today, people are tending to live longer than in the past, and the average age of the U.S. population is greater than it was thirty years ago (see Figure 1). Consequently, since cancer occurs more frequently in older people, today's U.S. populations will tend to have more cases of cancer than in the past. Calculation of disease rates based on the 2000 population structure provides a more realistic and consistent standard of measurement.

Figure 1.
Population Pyramids for the 1970 and Estimated 2000 U.S. Populations



Source: U.S. Census Bureau

The age-adjusted rate is calculated by applying a series of weights to the age-specific rates. The weights are the respective proportions of the standard population in each age group. The new 2000 population standard reflects the age distribution of the current U.S. population and therefore has higher weights in older age groups. For example, the 2000 standard population has higher weights than the 1970 standard population for all groups age 70 and over.

The impact of changing the standard population on age-adjusted cancer rates

The new calculation using the 2000 population does not indicate a change in cancer incidence or occurrence—only a different representation of the rates of reported diseases. The new calculations produce standardized cancer rates that appear to be about 20% higher than previously reported.

Some specific sites may be affected to different degrees. Nationally, the incidence rate of acute lymphocytic leukemia, which is common in younger people, appears to decrease when changing the standard from 1970 to 2000, but there are apparent increases over 20% for cancers of the prostate, rectum, breast, and pancreas, i.e. cancers typically diagnosed in older people.

Overall incidence rates for males and females appear to be more disparate when using the new standard population, because rates for males will be affected greater than for females by the change in population standard. By contrast, standardized incidence rates of total cancer for blacks and whites appear slightly less disparate.

Changing to the new population standard may also have an impact on the magnitude of trends in age-adjusted rates. For example, national age-adjusted cancer incidence for all sites combined began to decline after 1992. Overall, this trend represents a 1.2% annual decrease using rates adjusted to the 1970 standard, but a 1.4% decrease using rates adjusted to the 2000 standard.

Comparison of 1999 Incidence Data for N.J. Using 1970 & 2000 U.S. Population Standards

In light of an aging population and in accordance with the preceding discussion, New Jersey's 1999 age-adjusted cancer incidence rates show an apparent increase using the 2000 standard population for total cancer and for almost all individual cancers. For total cancer, the change is approximately 20% higher for both males and females (Tables 9 & 10). For black males, the change is about 17% higher, as this subgroup of our population has a slightly younger structure.

The percent change in adjusted incidence rates varies by individual cancer. The only cancer site in which we see a lower rate in New Jersey using the 2000 standard population is acute lymphocytic leukemia; incidence rates were 6% lower for males and 15% lower for females.

Cancer sites affected most by use of the new standard are bladder, with rates about 25% higher, colorectal, about 26% higher, pancreas, about 27% higher, and stomach, about 30% higher. Cancer sites affected less by the use of the new standard are prostate, with rates about 17% higher, female breast, about 18% higher, female thyroid, about 16% higher and uterine, about 14% higher. It is important to remember that this new calculation does not indicate a change in disease occurrence, only a different representation of the rates.

METHODS

Collection and Sources of Data

The incidence data were taken from the July 2001 analytic file and tabulated using SEER*Stat (http://seer.cancer.gov/ScientificSystems/SEERStat), a statistical software package distributed by the National Cancer Institute. The 1995-1999 population estimates are provided by the U.S. Bureau of the Census.

The NJSCR follows the guidelines and standard practices of the SEER Program in determining multiple primary cancers for an individual. Statistics for *in situ* cancers of the breast are presented, but not included in the statistics for cancers of all sites.

An individual may develop more than one type of cancer within a given year. Therefore, the number of cancer cases is greater than the number of cancer patients. Out-of-state residents and cases with unknown age and/or gender are excluded. Race-specific information is not shown separately for persons of non-white or non-black races (including unknown race), but this information is included in the "all races" data.

Estimation of Completeness and Other Data Quality Indicators

Completeness of reporting was estimated by comparing New Jersey and U.S. incidence to mortality ratios for whites, standardized for age, gender, and cancer site. The data used to generate these ratios were the cancer incidence rates for all SEER registries combined. Using these standard formulae, it is possible for the estimation of completeness to be greater than 100%. For 1999, the completeness of case reporting was estimated as 104% when this report was prepared. In contrast, the 1998 rates for the comparable incidence report for the years 1994-1998, which the New Jersey Department of Health & Senior Services issued in December of 2000, was calculated to be 105.5% at that time. Cancers among children (ages 0-14) tend to be reported somewhat later than those among adults because many pediatric cases are diagnosed in out-of-state facilities that are not subject directly to New Jersey reporting regulations. Out-of-state cases are reported under mutual agreements with New York, Pennsylvania, Delaware, Florida, and Maryland.

Other 1999 data quality indicators measured were as follows:

Incidence:

Percent death-certificate-only cases: 1.4%
Percent of unresolved duplicates: <0.04%
Percent of unknown race: 0.0%
Number of unknown age: 35
Number of unknown gender: 0

Calculation of Rates

A cancer incidence rate is defined as the number of new cases of cancer detected during a specified time period in a specified population. These rates are most commonly expressed as cases per 100,000 population. Cancer occurs at different rates in different age groups, and population subgroups defined by gender and race have different age distributions. Therefore, before a valid comparison can be made between rates, it is necessary not only to adjust the rates by age but also to standardize the rates to the age distribution of a standard population. In this report, the 1970 US Standard Million population and an estimation of the 2000 US Standard population were used. Records that were missing gender, age, or race could not be included in the rates presented in this report. Since the number of records so affected are very small, the rates are virtually unaffected by the non-inclusion of these records.

The first step in this procedure was to determine the age-specific rates. For each age-group for a given time interval (within each race-gender group, for the entire state), the following formula was applied:

$$r_a = \frac{n_a}{t \; x \; P_a}$$

where:

- r_a = the age-specific rate for age-group a,
- n_a = the number of events (cancer diagnoses) in the age-group during the time interval,
- t = the length of the time interval (in years), and
- P_a = average size of the population in the age-group during the time interval (mid- year population or average of mid-year population sizes).

In order to determine the age-adjusted and standardized rate, a weighted average of the age-specific rates was calculated, using the age distribution of the standard population to derive the age-specific weighting factors (Rothman, 1986). This is the technique of direct standardization, which uses the following formula:

$$R = \frac{\sum_{a=1}^{n} r_a \; x \; Std.P_a}{\sum_{a=1}^{n} Std.P_a}$$

where:

- R = the age-adjusted rate
- r_a = the age-specific rate for age-group a, and
- $Std.P_a$ = the size of the standard population in each age-group a.

While age adjustment and standardization facilitates the comparison of rates among different populations, there can be important age-specific differences in disease occurrence, which are not apparent in comparisons of the age-adjusted rates (Breslow and Day, 1987).

Analogous definitions and calculations apply for cancer mortality rates.

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Table 1. Males, All Races Combined

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
All Sites	110,985	515.7	518.7	522.1	519.5	492.2
Oral Cavity and Pharynx	2,940	14.9	14.3	13.9	14.0	11.8
Lip	154	0.9	0.7	0.8	0.7	0.4
Tongue	741	2.9	3.6	3.3	4.3	3.3
Salivary Gland	287	1.3	1.1	1.5	1.5	1.1
Floor of Mouth	264	1.8	1.3	1.3	1.0	0.9
Gum and Other Mouth	416	2.4	2.2	1.8	1.8	1.4
Nasopharynx	189	1.1	0.8	0.8	0.9	0.9
Tonsil	331	1.3	1.8	1.5	1.8	1.3
Oropharynx	124	0.7	0.6	0.8	0.4	0.5
Hypopharynx	303	1.8	1.6	1.4	1.2	1.3
Digestive System	22,874	104.4	104.1	105.6	107.9	101.0
Esophagus	1,589	7.3	7.3	7.4	7.9	7.2
Stomach	2,640	11.9	11.8	12.4	12.2	11.6
Small Intestine	327	1.3	1.3	1.5	1.7	1.8
Colon and Rectum	13,695	62.4	63.3	63.2	63.5	60.3
Colon excluding Rectum	9,569	43.8	43.2	44.2	44.1	41.8
Rectum and Rectosigmoid Junction	4,126	18.6	20.1	19.0	19.4	18.5
Anus	190	0.8	0.7	1.0	0.9	0.9
Liver and Intrahepatic Bile Duct	1,337	6.1	6.3	6.0	6.8	5.6
Liver	1,157	5.2	5.6	5.0	5.9	5.0
Intrahepatic Bile Duct	180	0.9	0.8	0.9	0.9	0.6
Gallbladder	202	0.8	0.9	1.1	1.1	0.7
Pancreas	2,367	11.4	10.4	10.5	11.1	10.6
Respiratory System	18,966	91.1	90.5	89.2	89.7	79.2
Larynx	1,605	8.5	7.8	7.9	7.3	6.4
Lung and Bronchus	16,637	79.0	79.1	78.1	79.1	70.0
Bones and Joints	225	0.9	1.5	1.0	1.3	1.0
Soft Tissue (Including Heart)	711	3.5	3.4	3.2	3.5	3.2
Skin (Excluding Basal and Squamous)	4,069	17.0	19.2	20.0	18.6	17.5
Melanomas of the Skin	3,491	13.6	16.3	17.9	16.2	15.8

Table 1 (continued). Males, All Races Combined

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
Breast	270	1.0	1.3	1.3	1.2	1.3
Male Genital System	34,983	159.1	164.5	172.1	160.2	161.1
Prostate	33,728	153.9	159.4	166.7	154.5	155.4
Testis	1,064	4.2	4.3	4.6	4.7	5.0
Penis	139	0.7	0.5	0.7	0.8	0.5
Urinary System	11,300	53.6	50.6	50.2	52.6	52.1
Urinary Bladder (Including *in situ*)	7,765	37.0	34.2	34.9	35.0	35.8
Kidney and Renal Pelvis	3,263	15.1	15.6	14.3	16.1	15.0
Ureter	184	1.0	0.6	0.8	1.0	0.9
Eye and Orbit	196	1.0	1.0	1.2	1.0	0.5
Brain and Other Nervous System	1,595	8.4	7.6	7.7	7.8	6.8
Brain	1,494	7.8	7.2	7.3	7.3	6.3
Endocrine System	854	4.2	3.3	3.6	4.4	4.4
Thyroid	684	3.2	2.5	2.9	3.5	3.5
Lymphomas	5,393	25.3	25.1	23.7	26.0	23.7
Hodgkins Disease	728	4.0	3.5	3.3	3.5	3.4
Non-Hodgkins Lymphomas	4,665	21.3	21.5	20.4	22.5	20.3
Multiple Myeloma	1,217	5.9	5.3	5.7	5.8	5.1
Leukemias	2,797	13.2	14.1	13.0	13.6	12.3
Lymphocytic Leukemia	1,174	6.0	6.2	5.1	6.3	5.5
Acute Lymphocytic Leukemia	346	2.0	2.1	1.6	2.3	1.8
Chronic Lymphocytic Leukemia	791	3.7	4.0	3.4	3.8	3.4
Myeloid Leukemia	1,218	5.2	6.3	6.2	5.4	4.9
Acute Myeloid Leukemia	777	3.4	3.9	3.9	3.4	3.5
Chronic Myeloid Leukemia	377	1.5	2.1	2.0	1.7	1.2
Monocytic Leukemia	58	0.3	0.1	0.2	0.3	0.3
Other Leukemia	347	1.7	1.5	1.4	1.6	1.6
Ill-Defined & Unspecified Sites	2,595	12.3	12.9	10.6	12.0	11.1

Table 2. Females, All Races Combined

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
All Sites	106,827	376.2	377.8	386.1	387.8	371.5
Oral Cavity and Pharynx	1,575	6.2	6.0	5.2	5.3	5.9
Lip	74	0.3	0.2	0.3	0.3	0.2
Tongue	383	1.5	1.5	1.1	1.3	1.5
Salivary Gland	244	0.7	1.1	0.8	1.0	0.7
Floor of Mouth	125	0.5	0.5	0.5	0.5	0.3
Gum and Other Mouth	339	1.2	1.1	1.2	1.0	1.3
Nasopharynx	88	0.4	0.4	0.3	0.3	0.4
Tonsil	134	0.5	0.6	0.4	0.3	0.7
Oropharynx	54	0.3	0.1	0.1	0.2	0.3
Hypopharynx	84	0.4	0.3	0.3	0.3	0.3
Digestive System	21,083	67.4	66.5	68.9	68.8	64.5
Esophagus	605	2.1	1.8	2.1	1.9	2.0
Stomach	1,761	5.6	5.4	5.5	5.9	5.0
Small Intestine	299	0.9	0.9	0.9	1.1	1.3
Colon and Rectum	13,641	43.5	43.0	44.3	44.8	40.9
Colon excluding Rectum	10,261	32.3	31.9	32.9	33.3	30.2
Rectum and Rectosigmoid Junction	3,380	11.2	11.1	11.5	11.5	10.6
Anus	316	0.9	1.1	1.4	1.0	1.1
Liver and Intrahepatic Bile Duct	679	2.3	2.2	2.3	2.2	2.2
Liver	500	1.8	1.6	1.9	1.4	1.6
Intrahepatic Bile Duct	179	0.4	0.5	0.5	0.8	0.5
Gallbladder	454	1.4	1.5	1.4	1.4	1.4
Pancreas	2,780	9.1	8.7	9.1	8.8	8.5
Respiratory System	13,978	48.2	50.2	50.0	50.5	48.6
Larynx	429	1.6	1.7	1.5	2.0	1.4
Lung and Bronchus	13,259	45.8	47.5	47.4	47.4	46.3
Bones and Joints	200	0.7	0.9	1.0	1.3	0.8
Soft Tissue (Including Heart)	630	2.7	2.3	2.9	2.4	2.1
Skin (Excluding Basal and Squamous)	2,883	9.5	9.9	11.9	11.1	10.1
Melanomas of the Skin	2,596	8.5	9.0	10.9	10.0	9.3
Breast (Invasive)	31,755	115.6	116.1	120.0	119.1	117.1
in situ (not included in All Sites)	6,443	20.4	23.2	25.9	28.2	29.7

Table 2 (continued). Females, All Races Combined

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
Female Genital System	14,244	54.3	53.7	53.0	54.8	52.5
Cervix (Invasive)	2,509	10.2	10.4	9.3	8.9	8.7
Corpus and Uterus, NOS	6,640	25.2	24.7	24.8	26.5	25.8
Corpus	6,343	24.0	23.7	23.8	25.3	24.8
Uterus, NOS	297	1.2	0.9	1.0	1.2	1.0
Ovary	4,226	16.3	16.0	15.6	16.2	15.3
Vagina	157	0.6	0.4	0.7	0.4	0.4
Vulva	559	1.5	1.7	2.0	2.1	1.7
Urinary System	5,200	17.7	17.2	18.1	17.7	17.7
Urinary Bladder (Including *in situ*)	2,867	9.4	9.5	9.8	9.5	8.9
Kidney and Renal Pelvis	2,181	7.8	7.2	7.9	7.8	8.2
Ureter	119	0.4	0.4	0.4	0.3	0.4
Eye and Orbit	181	0.9	0.8	0.6	0.8	0.4
Brain and Other Nervous System	1,392	5.3	5.7	5.3	5.8	5.6
Brain	1,273	5.0	5.2	4.9	5.2	5.1
Endocrine System	2,098	7.7	8.3	7.8	8.8	9.7
Thyroid	1,958	7.0	7.7	7.2	8.1	9.3
Lymphomas	4,988	17.4	17.4	19.0	19.4	17.1
Hodgkins Disease	643	3.2	3.1	2.8	3.1	2.8
Non-Hodgkins Lymphomas	4,345	14.2	14.3	16.3	16.2	14.3
Multiple Myeloma	1,158	3.7	3.8	4.1	4.3	3.5
Leukemias	2,257	8.7	8.4	8.6	7.6	7.4
Lymphocytic Leukemia	894	3.8	3.3	3.8	3.0	3.3
Acute Lymphocytic Leukemia	253	1.3	1.6	1.5	1.4	1.3
Chronic Lymphocytic Leukemia	610	2.4	1.6	2.2	1.5	1.8
Myeloid Leukemia	1,020	3.7	4.2	3.6	3.6	3.2
Acute Myeloid Leukemia	700	2.6	3.0	2.4	2.3	2.3
Chronic Myeloid Leukemia	266	0.9	0.9	1.1	0.9	0.7
Monocytic Leukemia	46	0.2	0.1	0.2	0.2	0.1
Other Leukemia	297	1.0	0.9	1.0	0.8	0.8
Ill-Defined & Unspecified Sites	3,205	10.4	10.5	9.6	10.0	8.7

Table 3. White Males

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
All Sites	95,764	504.5	513.6	516.7	515.8	488.2
Oral Cavity and Pharynx	2,367	13.8	13.6	13.0	12.7	11.6
Lip	151	1.1	0.8	0.8	0.7	0.5
Tongue	603	2.8	3.4	3.2	4.1	3.2
Salivary Gland	242	1.2	1.2	1.5	1.4	1.2
Floor of Mouth	215	1.7	1.2	1.3	0.8	0.9
Gum and Other Mouth	335	2.2	2.1	1.6	1.7	1.4
Nasopharynx	136	1.0	0.7	0.6	0.6	0.9
Tonsil	261	1.1	1.8	1.5	1.6	1.3
Oropharynx	91	0.5	0.4	0.7	0.2	0.6
Hypopharynx	229	1.6	1.5	1.2	0.9	1.2
Digestive System	19,751	101.9	102.9	104.2	105.6	99.6
Esophagus	1,278	6.4	6.6	6.8	7.3	7.1
Stomach	2,193	11.1	11.1	11.8	11.6	11.3
Small Intestine	265	1.2	1.2	1.4	1.6	1.6
Colon and Rectum	12,123	62.1	64.1	64.0	63.7	60.4
Colon excluding Rectum	8,446	43.4	43.2	44.6	44.1	41.5
Rectum and Rectosigmoid Junction	3,677	18.7	20.9	19.4	19.6	18.9
Anus	158	0.9	0.7	1.0	0.8	0.9
Liver and Intrahepatic Bile Duct	1,045	5.6	5.8	5.2	6.0	5.0
Liver	900	4.8	5.1	4.4	5.2	4.5
Intrahepatic Bile Duct	145	0.8	0.8	0.8	0.8	0.5
Gallbladder	176	0.8	0.9	1.1	1.0	0.7
Pancreas	2,044	11.2	10.6	10.4	10.9	10.1
Respiratory System	16,336	89.9	88.2	87.3	87.9	77.8
Larynx	1,330	8.3	7.2	7.5	7.0	6.0
Lung and Bronchus	14,347	77.8	77.2	76.6	77.4	68.9
Bones and Joints	185	0.9	1.5	1.1	1.3	1.0
Soft Tissue (Including Heart)	607	3.4	3.4	3.1	3.7	3.3
Skin (Excluding Basal and Squamous)	3,824	17.5	21.2	22.4	20.9	19.8
Melanomas of the Skin	3,398	14.6	18.7	20.6	18.7	18.2

Table 3 (continued). White Males

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
Breast	236	1.0	1.4	1.2	1.3	1.3
Male Genital System	29,375	149.6	157.7	164.7	156.1	153.8
Prostate	28,200	143.6	151.6	158.3	149.3	147.2
Testis	1,009	5.0	5.3	5.5	5.7	5.9
Penis	117	0.7	0.4	0.6	0.8	0.4
Urinary System	10,449	56.0	53.5	52.7	55.9	55.7
Urinary Bladder (Including *in situ*)	7,347	39.2	37.1	37.2	37.9	39.0
Kidney and Renal Pelvis	2,844	15.3	15.4	14.3	16.4	15.3
Ureter	178	1.0	0.7	0.9	1.1	1.0
Eye and Orbit	177	1.1	1.1	1.3	1.0	0.5
Brain and Other Nervous System	1,400	8.7	8.0	8.4	8.0	7.0
Brain	1,317	8.1	7.6	7.9	7.5	6.6
Endocrine System	745	4.2	3.3	3.8	4.8	4.8
Thyroid	603	3.2	2.6	3.1	3.8	3.8
Lymphomas	4,661	25.8	25.7	24.6	26.1	23.7
Hodgkins Disease	613	4.2	3.8	3.4	3.6	3.6
Non-Hodgkins Lymphomas	4,048	21.6	21.9	21.2	22.5	20.1
Multiple Myeloma	960	5.4	4.8	5.2	5.1	4.5
Leukemias	2,472	13.6	15.0	13.2	13.8	12.5
Lymphocytic Leukemia	1,042	6.3	6.6	5.2	6.6	5.6
Acute Lymphocytic Leukemia	292	2.2	2.4	1.7	2.5	1.8
Chronic Lymphocytic Leukemia	720	3.8	4.2	3.3	4.0	3.5
Myeloid Leukemia	1,077	5.4	6.7	6.3	5.4	5.0
Acute Myeloid Leukemia	704	3.6	4.3	4.1	3.4	3.7
Chronic Myeloid Leukemia	319	1.5	2.1	2.0	1.6	1.1
Monocytic Leukemia	51	0.3	0.2	0.3	0.3	0.3
Other Leukemia	302	1.7	1.5	1.5	1.5	1.6
Ill-Defined & Unspecified Sites	2,219	11.6	12.3	10.6	11.7	11.1

Table 4. White Females

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
All Sites	93,570	382.1	389.8	394.2	397.2	380.1
Oral Cavity and Pharynx	1,342	6.2	6.0	5.1	5.0	5.7
Lip	66	0.3	0.2	0.3	0.3	0.2
Tongue	330	1.6	1.5	1.1	1.3	1.4
Salivary Gland	214	0.8	1.2	0.8	0.9	0.7
Floor of Mouth	106	0.5	0.6	0.5	0.5	0.3
Gum and Other Mouth	299	1.2	1.1	1.1	0.9	1.4
Nasopharynx	62	0.4	0.4	0.3	0.2	0.2
Tonsil	112	0.5	0.5	0.4	0.3	0.7
Oropharynx	46	0.3	0.1	0.1	0.1	0.3
Hypopharynx	66	0.3	0.3	0.2	0.3	0.3
Digestive System	18,302	65.4	66.0	67.7	67.5	63.2
Esophagus	477	1.8	1.6	1.7	1.7	1.8
Stomach	1,417	4.9	4.9	5.1	5.2	4.5
Small Intestine	246	0.9	0.8	0.9	1.1	1.1
Colon and Rectum	12,028	43.0	43.7	44.0	44.6	40.6
Colon excluding Rectum	9,033	31.8	32.1	32.6	32.9	29.6
Rectum and Rectosigmoid Junction	2,995	11.1	11.5	11.4	11.6	11.0
Anus	273	0.9	1.1	1.4	1.1	1.1
Liver and Intrahepatic Bile Duct	571	2.2	1.9	2.3	2.2	2.1
Liver	404	1.8	1.3	1.7	1.3	1.5
Intrahepatic Bile Duct	167	0.4	0.6	0.5	0.9	0.6
Gallbladder	382	1.3	1.5	1.4	1.2	1.3
Pancreas	2,422	8.8	8.7	9.0	8.7	8.5
Respiratory System	12,423	49.4	51.7	51.3	51.6	50.1
Larynx	358	1.6	1.6	1.6	1.8	1.2
Lung and Bronchus	11,812	46.9	49.0	48.6	48.7	47.8
Bones and Joints	171	0.7	1.0	1.1	1.4	0.8
Soft Tissue (Including Heart)	527	2.7	2.2	2.7	2.4	2.2
Skin (Excluding Basal and Squamous)	2,742	10.3	11.3	13.6	12.9	11.9
Melanomas of the Skin	2,500	9.5	10.4	12.5	11.8	11.2
Breast (Invasive)	27,824	119.3	120.8	124.0	123.2	121.0
in situ (not included in All Sites)	5,607	20.7	23.8	27.5	29.9	31.3

Table 4 (continued). White Females

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
Female Genital System	12,266	54.5	55.7	53.5	56.5	54.0
Cervix (Invasive)	1,867	8.8	9.7	8.4	8.2	8.2
Corpus and Uterus, NOS	5,888	26.0	26.1	25.6	28.0	27.3
Corpus	5,663	24.9	25.2	24.8	27.0	26.4
Uterus, NOS	225	1.1	0.8	0.8	1.0	0.9
Ovary	3,758	17.2	17.2	16.2	16.9	16.0
Vagina	129	0.5	0.4	0.7	0.4	0.4
Vulva	495	1.3	1.8	2.0	2.2	1.6
Urinary System	4,710	18.7	18.1	18.7	18.5	18.1
Urinary Bladder (Including *in situ*)	2,648	10.0	10.0	10.3	10.1	9.4
Kidney and Renal Pelvis	1,926	8.2	7.6	7.9	7.9	8.2
Ureter	117	0.5	0.4	0.4	0.4	0.5
Eye and Orbit	173	1.0	1.0	0.7	0.9	0.4
Brain and Other Nervous System	1,240	5.7	6.0	5.6	6.3	6.0
Brain	1,141	5.3	5.6	5.2	5.6	5.5
Endocrine System	1,806	8.1	8.9	8.2	9.8	10.4
Thyroid	1,686	7.3	8.3	7.6	9.0	9.9
Lymphomas	4,410	18.5	18.1	20.0	20.1	17.4
Hodgkins Disease	560	3.6	3.3	3.2	3.5	3.0
Non-Hodgkins Lymphomas	3,850	14.8	14.8	16.8	16.7	14.4
Multiple Myeloma	887	3.1	3.6	3.6	3.5	3.0
Leukemias	2,000	8.9	9.0	8.9	8.0	7.8
Lymphocytic Leukemia	804	3.9	3.6	4.0	3.2	3.6
Acute Lymphocytic Leukemia	221	1.4	1.8	1.8	1.5	1.6
Chronic Lymphocytic Leukemia	557	2.4	1.7	2.2	1.6	2.0
Myeloid Leukemia	898	3.9	4.4	3.6	3.7	3.3
Acute Myeloid Leukemia	628	2.7	3.1	2.6	2.5	2.5
Chronic Myeloid Leukemia	224	0.9	1.0	0.9	0.9	0.7
Monocytic Leukemia	39	0.2	0.1	0.2	0.3	0.1
Other Leukemia	259	0.9	0.9	1.0	0.8	0.8
Ill-Defined & Unspecified Sites	2,747	9.7	10.3	9.6	9.7	8.1

Table 5. Black Males

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
All Sites	12,263	631.2	611.0	604.2	603.8	547.6
Oral Cavity and Pharynx	461	24.1	20.7	21.5	24.2	12.8
Lip	2	0.0	0.0	0.2	0.0	0.2
Tongue	111	4.7	5.1	4.4	6.3	4.4
Salivary Gland	35	2.8	0.8	1.3	2.5	0.7
Floor of Mouth	44	2.6	2.0	2.2	2.2	0.6
Gum and Other Mouth	60	3.2	3.4	4.1	2.0	1.3
Nasopharynx	21	1.1	0.8	1.2	0.8	0.3
Tonsil	69	3.3	2.7	2.2	4.7	1.8
Oropharynx	30	1.5	1.6	1.8	1.4	0.2
Hypopharynx	64	3.7	3.2	2.6	3.6	2.0
Digestive System	2,475	133.4	113.8	118.3	125.9	114.7
Esophagus	271	16.2	12.7	12.6	14.9	9.5
Stomach	339	18.1	16.9	17.5	15.4	15.2
Small Intestine	49	2.0	2.2	1.8	2.6	2.8
Colon and Rectum	1,285	72.2	60.5	60.4	65.2	60.7
Colon excluding Rectum	947	53.3	45.5	44.3	48.0	46.3
Rectum and Rectosigmoid Junction	338	18.9	15.1	16.1	17.2	14.3
Anus	31	0.8	0.5	1.6	1.7	1.2
Liver and Intrahepatic Bile Duct	166	8.1	6.1	8.6	7.6	8.3
Liver	145	7.3	5.3	7.0	6.3	7.5
Intrahepatic Bile Duct	21	0.8	0.9	1.6	1.4	0.8
Gallbladder	16	0.0	0.6	1.4	1.3	1.0
Pancreas	270	15.0	11.0	12.5	13.6	14.5
Respiratory System	2,314	114.7	122.2	116.6	119.6	101.3
Larynx	243	12.0	14.0	12.8	9.7	11.0
Lung and Bronchus	2,021	100.0	106.3	100.8	107.8	88.6
Bones and Joints	23	0.8	1.0	0.8	0.8	0.5
Soft Tissue (Including Heart)	73	4.1	2.6	2.4	2.1	3.3
Skin (Excluding Basal and Squamous)	149	7.0	6.2	4.4	4.5	2.0
Melanomas of the Skin	20	1.7	0.4	1.1	0.6	0.3

Table 5 (continued). Black Males

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
Breast	27	0.7	0.8	2.2	1.0	1.6
Male Genital System	4,590	243.6	240.0	246.9	221.9	224.0
Prostate	4,541	241.6	238.9	245.0	220.2	222.0
Testis	33	1.4	0.5	0.9	0.7	1.6
Penis	13	0.6	0.6	0.5	1.0	0.2
Urinary System	653	34.0	33.1	34.0	33.7	27.8
Urinary Bladder (Including *in situ*)	307	18.0	15.3	18.3	16.7	13.0
Kidney and Renal Pelvis	336	14.9	17.8	15.7	16.5	14.0
Ureter	4	0.5	0.0	0.0	0.2	0.2
Eye and Orbit	14	0.7	0.8	0.3	0.9	0.3
Brain and Other Nervous System	128	4.9	5.3	4.2	5.7	5.1
Brain	119	4.4	4.8	3.8	5.5	5.0
Endocrine System	60	2.5	2.6	2.9	2.0	2.7
Thyroid	41	1.9	1.8	1.8	1.5	2.0
Lymphomas	534	20.6	24.5	16.4	22.3	20.7
Hodgkins Disease	98	4.0	3.0	3.4	3.2	4.1
Non-Hodgkins Lymphomas	436	16.7	21.6	13.1	19.1	16.6
Multiple Myeloma	217	10.7	11.0	10.2	11.5	9.9
Leukemias	229	10.8	7.6	11.5	12.1	9.3
Lymphocytic Leukemia	89	4.2	3.1	4.9	4.4	3.7
Acute Lymphocytic Leukemia	30	0.8	1.3	1.0	1.2	1.4
Chronic Lymphocytic Leukemia	54	3.2	1.6	3.5	3.1	2.4
Myeloid Leukemia	102	4.3	3.7	5.0	5.1	3.3
Acute Myeloid Leukemia	56	2.5	2.2	2.4	2.5	2.2
Chronic Myeloid Leukemia	38	1.6	1.5	2.1	2.2	1.0
Monocytic Leukemia	4	0.1	0.0	0.2	0.3	0.2
Other Leukemia	34	2.1	0.7	1.4	2.2	2.0
Ill-Defined & Unspecified Sites	316	18.7	19.1	11.4	15.7	11.7

Table 6. Black Females

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
All Sites	10,500	353.4	329.1	362.3	368.9	328.7
Oral Cavity and Pharynx	191	5.8	6.7	6.6	6.7	6.6
Lip	5	0.0	0.4	0.2	0.3	0.0
Tongue	46	1.2	1.5	1.4	1.0	2.3
Salivary Gland	26	0.8	0.9	0.9	0.8	0.7
Floor of Mouth	17	0.5	0.3	0.6	1.0	0.5
Gum and Other Mouth	33	1.0	1.0	1.5	1.8	0.3
Nasopharynx	13	0.4	0.6	0.5	0.3	0.6
Tonsil	21	0.6	1.4	0.3	0.5	0.8
Oropharynx	7	0.2	0.0	0.0	0.3	0.6
Hypopharynx	16	1.0	0.6	0.9	0.1	0.3
Digestive System	2,297	82.1	71.0	82.1	83.0	73.2
Esophagus	117	5.3	3.9	4.9	3.4	3.4
Stomach	252	9.1	7.6	8.9	9.4	6.7
Small Intestine	46	1.3	1.4	1.3	1.2	2.9
Colon and Rectum	1,376	47.8	42.3	50.2	49.6	44.5
Colon excluding Rectum	1,065	36.8	33.3	37.0	38.9	35.2
Rectum and Rectosigmoid Junction	311	11.0	9.0	13.2	10.7	9.3
Anus	31	1.4	1.0	1.7	0.6	0.6
Liver and Intrahepatic Bile Duct	61	1.9	2.3	2.0	1.7	2.0
Liver	54	1.7	2.0	1.9	1.4	1.8
Intrahepatic Bile Duct	7	0.2	0.3	0.2	0.3	0.2
Gallbladder	57	2.1	1.7	1.4	3.0	1.4
Pancreas	310	11.6	9.5	10.7	11.6	10.2
Respiratory System	1,378	45.7	45.4	48.4	52.7	45.6
Larynx	64	1.7	2.2	1.6	3.4	2.2
Lung and Bronchus	1,288	43.4	42.2	45.5	48.6	43.1
Bones and Joints	18	0.6	0.3	0.4	0.8	0.8
Soft Tissue (Including Heart)	81	2.0	3.2	3.2	2.8	1.9
Skin (Excluding Basal and Squamous)	59	1.9	2.1	2.0	2.1	0.7
Melanomas of the Skin	22	0.2	0.9	1.4	0.9	0.2
Breast (Invasive)	2,992	99.3	96.0	99.9	101.3	90.4
in situ (not included in All Sites)	562	18.0	17.3	17.5	19.8	19.5

Table 6 (continued). Black Females

Cancer Site	Total Cases	Rates 1995	1996	1997	1998	1999 Prelim.
Female Genital System	1,553	53.1	47.1	53.4	51.6	46.3
Cervix (Invasive)	515	17.6	15.7	16.2	14.3	13.4
Corpus and Uterus, NOS	598	21.4	18.8	21.1	22.0	18.5
Corpus	530	19.2	16.8	18.5	19.4	16.8
Uterus, NOS	68	2.2	1.9	2.6	2.6	1.7
Ovary	345	10.6	10.1	12.5	12.7	10.8
Vagina	24	0.9	0.8	1.2	0.5	0.7
Vulva	51	2.1	1.4	1.4	1.2	2.0
Urinary System	417	12.1	12.5	16.5	14.9	14.3
Urinary Bladder (Including *in situ*)	177	5.2	6.1	7.4	6.5	4.9
Kidney and Renal Pelvis	225	6.7	5.8	8.8	8.1	8.5
Ureter	2	0.0	0.3	0.0	0.0	0.0
Eye and Orbit	3	0.0	0.0	0.4	0.2	0.0
Brain and Other Nervous System	110	4.0	3.5	3.3	4.3	3.2
Brain	95	3.3	3.0	2.7	3.7	3.2
Endocrine System	145	5.1	4.0	5.3	3.5	3.9
Thyroid	130	4.9	3.4	4.4	2.8	3.9
Lymphomas	433	10.4	13.0	14.6	15.3	14.5
Hodgkins Disease	73	1.2	3.2	1.7	2.7	2.3
Non-Hodgkins Lymphomas	360	9.2	9.8	13.0	12.6	12.2
Multiple Myeloma	236	8.3	6.1	8.3	10.5	7.3
Leukemias	200	7.2	5.8	8.6	6.7	5.4
Lymphocytic Leukemia	70	3.0	1.7	3.1	2.4	1.9
Acute Lymphocytic Leukemia	27	1.1	1.0	0.7	1.2	0.8
Chronic Lymphocytic Leukemia	39	1.8	0.6	2.4	1.1	1.0
Myeloid Leukemia	95	3.0	3.2	4.1	3.2	2.4
Acute Myeloid Leukemia	54	1.6	2.3	1.8	1.7	1.5
Chronic Myeloid Leukemia	34	0.8	0.9	2.1	1.1	0.7
Monocytic Leukemia	7	0.0	0.1	0.4	0.2	0.5
Other Leukemia	28	1.2	0.8	1.1	0.9	0.6
Ill-Defined & Unspecified Sites	387	15.7	12.5	9.4	12.5	14.6

Table 7. Comparative Summary
U.S. and New Jersey Cancer Incidence, 1994-1998: Males

Cancer Site	United States 1994-1998			New Jersey 1994-1998		
Population:	All Races Combined	White	Black	All Races Combined	White	Black
All Sites	466.4	457.7	568.2	513.4	505.3	596.5
Colorectal	53.9	53.6	57.2	62.7	63.1	62.5
Lung	79.5	78.0	109.3	78.7	77.2	102.1
Prostate	134.1	126.7	206.7	155.9	147.3	227.6
Melanoma	15.1	16.1	1.0	15.3	16.9	1.1
Non-Hodgkin's Lymphoma	18.6	18.9	14.8	21.1	21.5	17.0

Table 8. Comparative Summary
U.S. and New Jersey Cancer Incidence, 1994-1998: Females

Cancer Site	United States 1994-1998			New Jersey 1994-1998		
Population:	All Races Combined	White	Black	All Races Combined	White	Black
All Sites	348.2	351.7	332.6	377.3	384.9	346.0
Colorectal	38.4	38.0	44.3	43.6	43.3	47.0
Lung	45.3	46.2	45.1	46.4	47.4	45.5
Breast (invasive)	109.5	111.6	96.6	116.4	120.4	96.5
Melanoma	9.7	10.6	0.7	9.4	10.6	0.8
Non-Hodgkin's Lymphoma	12.7	13.1	8.8	14.8	15.3	10.8

Table 9. 1999 NJ Cancer Incidence Age-Adjusted Rates: Males
Comparison of 1970 & 2000 U.S. Population Standards

Cancer Site	All Races		Whites		Blacks	
	1970 Pop. Std.	2000 Pop. Std.	1970 Pop. Std.	2000 Pop. Std.	1970 Pop. Std.	2000 Pop. Std.
All Sites	492.2	591.6	488.2	588.3	547.6	640.1
Oral Cavity and Pharynx	11.8	13.8	11.6	13.6	12.8	14.1
Lip	0.4	0.6	0.5	0.6	0.2	0.3
Tongue	3.3	3.8	3.2	3.7	4.4	4.5
Salivary Gland	1.1	1.4	1.2	1.4	0.7	0.8
Floor of Mouth	0.9	1.1	0.9	1.1	0.6	0.6
Gum and Other Mouth	1.4	1.7	1.4	1.7	1.3	1.4
Nasopharynx	0.9	1.1	0.9	1.0	0.3	0.3
Tonsil	1.3	1.5	1.3	1.5	1.8	2.1
Oropharynx	0.5	0.6	0.6	0.6	0.2	0.2
Hypopharynx	1.3	1.5	1.2	1.4	2.0	2.2
Digestive System	101.0	126.6	99.6	125.4	114.7	139.6
Esophagus	7.2	8.5	7.1	8.4	9.5	11.8
Stomach	11.6	14.8	11.3	14.3	15.2	19.8
Small Intestine	1.8	2.2	1.6	1.9	2.8	3.5
Colon and Rectum	60.3	76.0	60.4	76.6	60.7	72.4
Colon excluding Rectum	41.8	53.6	41.5	53.6	46.3	55.7
Rectum and Rectosigmoid Junction	18.5	22.4	18.9	23.0	14.3	16.7
Anus	0.9	1.1	0.9	1.1	1.2	1.5
Liver and Intrahepatic Bile Duct	5.6	6.8	5.0	6.2	8.3	9.8
Liver	5.0	6.0	4.5	5.4	7.5	8.7
Intrahepatic Bile Duct	0.6	0.8	0.5	0.8	0.8	1.1
Gallbladder	0.7	0.8	0.7	0.8	1.0	1.3
Pancreas	10.6	13.4	10.1	12.8	14.5	17.9
Respiratory System	79.2	95.4	77.8	94.2	101.3	117.3
Larynx	6.4	7.5	6.0	7.0	11.0	12.0
Lung and Bronchus	70.0	84.6	68.9	83.6	88.6	103.5
Bones and Joints	1.0	1.0	1.0	1.0	0.5	0.5
Soft Tissue (Including Heart)	3.2	3.8	3.3	3.9	3.3	3.8
Skin (Excluding Basal and Squamous)	17.5	20.9	19.8	23.5	2.0	2.5
Melanomas of the Skin	15.8	18.8	18.2	21.5	0.3	0.4

Table 9 (continued). 1999 NJ Cancer Incidence Age-Adjusted Rates: Males
Comparison of 1970 & 2000 U.S. Population Standards

Cancer Site	All Races		Whites		Blacks	
	1970 Pop. Std.	2000 Pop. Std.	1970 Pop. Std.	2000 Pop. Std.	1970 Pop. Std.	2000 Pop. Std.
Breast	1.3	1.6	1.3	1.6	1.6	1.9
Male Genital System	161.1	187.9	153.8	179.7	224.0	258.4
Prostate	155.4	181.3	147.2	172.1	222.0	256.2
Testis	5.0	5.7	5.9	6.7	1.6	1.7
Penis	0.5	0.6	0.4	0.6	0.2	0.3
Urinary System	52.1	64.3	55.7	68.6	27.8	33.5
Urinary Bladder (Including *in situ*)	35.8	45.1	39.0	49.0	13.0	15.5
Kidney and Renal Pelvis	15.0	17.5	15.3	17.8	14.0	17.0
Ureter	0.9	1.0	1.0	1.1	0.2	0.2
Eye and Orbit	0.5	0.5	0.5	0.6	0.3	0.4
Brain and Other Nervous System	6.8	7.5	7.0	7.8	5.1	5.7
Brain	6.3	7.0	6.6	7.3	5.0	5.5
Endocrine System	4.4	5.0	4.8	5.3	2.7	3.0
Thyroid	3.5	4.1	3.8	4.4	2.0	2.3
Lymphomas	23.7	28.0	23.7	28.0	20.7	23.7
Hodgkins Disease	3.4	3.6	3.6	3.7	4.1	5.2
Non-Hodgkins Lymphomas	20.3	24.4	20.1	24.3	16.6	18.6
Multiple Myeloma	5.1	6.2	4.5	5.6	9.9	11.9
Leukemias	12.3	14.9	12.5	15.2	9.3	10.2
Lymphocytic Leukemia	5.5	6.4	5.6	6.6	3.7	3.8
Acute Lymphocytic Leukemia	1.8	1.7	1.8	1.7	1.4	1.2
Chronic Lymphocytic Leukemia	3.4	4.4	3.5	4.6	2.4	2.6
Myeloid Leukemia	4.9	6.0	5.0	6.1	3.3	3.8
Acute Myeloid Leukemia	3.5	4.2	3.7	4.4	2.2	2.2
Chronic Myeloid Leukemia	1.2	1.5	1.1	1.4	1.0	1.5
Monocytic Leukemia	0.3	0.4	0.3	0.4	0.2	0.2
Other Leukemia	1.6	2.1	1.6	2.1	2.0	2.3
Ill-Defined & Unspecified Sites	11.1	14.0	11.1	14.1	11.7	13.7

Table 10. 1999 NJ Cancer Incidence Age-Adjusted Rates : Females Comparison of 1970 & 2000 U.S. Population Standards

Cancer Site	All Races		Whites		Blacks	
	1970 Pop. Std.	2000 Pop. Std.	1970 Pop. Std.	2000 Pop. Std.	1970 Pop. Std.	2000 Pop. Std.
All Sites	371.5	444.6	380.1	454.0	328.7	396.7
Oral Cavity and Pharynx	5.9	6.9	5.7	6.8	6.6	7.2
Lip	0.2	0.3	0.2	0.2	0.0	0.0
Tongue	1.5	1.7	1.4	1.6	2.3	2.5
Salivary Gland	0.7	0.9	0.7	0.9	0.7	0.8
Floor of Mouth	0.3	0.4	0.3	0.4	0.5	0.5
Gum and Other Mouth	1.3	1.6	1.4	1.8	0.3	0.4
Nasopharynx	0.4	0.4	0.2	0.2	0.6	0.5
Tonsil	0.7	0.8	0.7	0.8	0.8	1.0
Oropharynx	0.3	0.4	0.3	0.4	0.6	0.7
Hypopharynx	0.3	0.3	0.3	0.3	0.3	0.4
Digestive System	64.5	81.8	63.2	80.4	73.2	92.2
Esophagus	2.0	2.5	1.8	2.3	3.4	3.9
Stomach	5.0	6.6	4.5	5.9	6.7	8.8
Small Intestine	1.3	1.5	1.1	1.3	2.9	3.5
Colon and Rectum	40.9	51.9	40.6	51.7	44.5	55.4
Colon excluding Rectum	30.2	38.7	29.6	38.1	35.2	43.9
Rectum and Rectosigmoid Junction	10.6	13.2	11.0	13.6	9.3	11.5
Anus	1.1	1.4	1.1	1.4	0.6	0.8
Liver and Intrahepatic Bile Duct	2.2	2.7	2.1	2.6	2.0	2.6
Liver	1.6	2.0	1.5	1.9	1.8	2.4
Intrahepatic Bile Duct	0.5	0.7	0.6	0.7	0.2	0.2
Gallbladder	1.4	1.7	1.3	1.7	1.4	1.6
Pancreas	8.5	10.9	8.5	10.8	10.2	13.9
Respiratory System	48.6	57.6	50.1	59.3	45.6	53.6
Larynx	1.4	1.5	1.2	1.4	2.2	2.3
Lung and Bronchus	46.3	54.9	47.8	56.6	43.1	50.9
Bones and Joints	0.8	0.8	0.8	0.8	0.8	0.8
Soft Tissue (Including Heart)	2.1	2.4	2.2	2.4	1.9	2.1
Skin (Excluding Basal and Squamous)	10.1	12.2	11.9	14.3	0.7	0.9
Melanomas of the Skin	9.3	11.3	11.2	13.4	0.2	0.2
Breast (Invasive)	117.1	138.0	121.0	142.4	90.4	107.2
in situ (not included in All Sites)	29.7	33.9	31.3	35.9	19.5	22.4

Table 10 (continued). 1999 NJ Cancer Incidence Age-adjusted Rates: Females
Comparison of 1970 & 2000 U.S. Population Standards

Cancer Site	All Races		Whites		Blacks	
	1970 Pop. Std.	2000 Pop. Std.	1970 Pop. Std.	2000 Pop. Std.	1970 Pop. Std.	2000 Pop. Std.
Female Genital System	52.5	61.0	54.0	62.5	46.3	55.1
Cervix (Invasive)	8.7	10.4	8.2	9.8	13.4	16.3
Corpus and Uterus, NOS	25.8	29.4	27.3	31.0	18.5	21.4
Corpus	24.8	28.3	26.4	30.0	16.8	19.2
Uterus, NOS	1.0	1.1	0.9	1.0	1.7	2.2
Ovary	15.3	17.8	16.0	18.6	10.8	12.9
Vagina	0.4	0.6	0.4	0.5	0.7	0.9
Vulva	1.7	2.1	1.6	2.1	2.0	2.7
Urinary System	17.7	21.4	18.1	22.1	14.3	16.8
Urinary Bladder (Including *in situ*)	8.9	11.1	9.4	11.8	4.9	6.2
Kidney and Renal Pelvis	8.2	9.6	8.2	9.6	8.5	9.5
Ureter	0.4	0.5	0.5	0.5	0.0	0.0
Eye and Orbit	0.4	0.5	0.4	0.5	0.0	0.0
Brain and Other Nervous System	5.6	6.2	6.0	6.7	3.2	3.5
Brain	5.1	5.8	5.5	6.2	3.2	3.5
Endocrine System	9.7	11.2	10.4	11.9	3.9	4.8
Thyroid	9.3	10.8	9.9	11.3	3.9	4.8
Lymphomas	17.1	20.4	17.4	20.8	14.5	18.0
Hodgkins Disease	2.8	2.9	3.0	3.1	2.3	2.6
Non-Hodgkins Lymphomas	14.3	17.5	14.4	17.7	12.2	15.4
Multiple Myeloma	3.5	4.3	3.0	3.7	7.3	9.1
Leukemias	7.4	8.6	7.8	9.0	5.4	6.6
Lymphocytic Leukemia	3.3	3.5	3.6	3.9	1.9	1.9
Acute Lymphocytic Leukemia	1.3	1.1	1.6	1.3	0.8	0.6
Chronic Lymphocytic Leukemia	1.8	2.3	2.0	2.5	1.0	1.2
Myeloid Leukemia	3.2	3.9	3.3	3.9	2.4	3.2
Acute Myeloid Leukemia	2.3	2.8	2.5	2.9	1.5	2.1
Chronic Myeloid Leukemia	0.7	1.0	0.7	0.9	0.7	1.0
Monocytic Leukemia	0.1	0.1	0.1	0.1	0.5	0.6
Other Leukemia	0.8	1.1	0.8	1.1	0.6	0.8
Ill-Defined & Unspecified Sites	8.7	11.3	8.1	10.5	14.6	18.9

Table 11. Population Denominators

	1995 All races Males	1995 All races Females	1995 White Males	1995 White Females	1995 Black Males	1995 Black Females	1996 All races Males	1996 All races Females	1996 White Males	1996 White Females	1996 Black Males	1996 Black Females
00-04	296,318	282,976	227,013	216,229	53,334	51,521	290,410	277,404	221,176	210,811	52,058	49,921
05-09	287,261	273,973	221,002	210,659	50,378	48,660	294,072	280,524	226,125	215,515	51,882	50,165
10-14	266,234	252,658	202,991	192,191	47,268	44,992	269,792	256,001	205,677	194,684	47,411	45,374
15-19	256,542	241,179	195,233	182,049	47,183	45,350	260,006	244,383	196,834	183,484	48,211	46,190
20-24	247,363	238,617	189,155	180,287	44,032	43,509	241,117	231,836	183,598	174,145	43,067	42,445
25-29	271,850	270,649	212,653	206,515	44,197	46,843	264,593	263,554	204,923	199,276	43,784	46,090
30-34	340,264	346,310	271,890	271,291	49,128	54,386	333,167	339,174	264,103	263,302	48,790	54,106
35-39	348,426	356,065	282,663	283,121	46,361	51,596	354,882	362,179	286,965	286,790	47,504	53,075
40-44	302,870	319,360	248,657	255,887	37,038	44,774	312,083	328,610	255,644	262,912	38,403	45,835
45-49	267,347	283,058	222,375	229,945	30,381	37,761	279,087	295,121	231,356	238,356	32,234	40,078
50-54	214,685	228,112	179,561	186,927	24,205	30,766	218,860	232,623	182,785	190,377	24,200	30,864
55-59	167,848	182,880	140,029	149,974	20,118	25,571	171,646	186,855	142,579	152,349	20,711	26,394
60-64	150,450	168,359	129,088	141,791	16,403	21,116	147,753	164,858	125,610	137,503	16,525	21,378
65-69	145,522	177,620	128,076	154,681	14,146	18,420	144,387	175,894	126,395	152,015	14,445	19,074
70-74	123,477	166,103	111,677	148,898	9,271	13,659	121,785	163,972	109,678	146,376	9,379	13,780
75-79	88,118	133,583	80,543	121,534	6,017	9,842	91,449	136,700	83,490	123,866	6,269	10,384
80-84	51,378	93,394	47,343	85,780	3,096	6,376	53,077	94,759	48,930	86,993	3,131	6,399
85+	31,794	83,107	29,096	76,756	2,163	5,508	33,160	86,077	30,293	79,443	2,277	5,707
Total	3,857,747	4,098,003	3,119,045	3,294,515	544,719	600,650	3,881,326	4,120,524	3,095,868	3,298,197	550,281	607,259

	1997 All races Males	1997 All races Females	1997 White Males	1997 White Females	1997 Black Males	1997 Black Females	1998 All races Males	1998 All races Females	1998 White Males	1998 White Females	1998 Black Males	1998 Black Females
00-04	284,867	272,000	216,306	206,136	50,523	48,043	280,907	268,750	209,969	200,089	50,547	48,725
05-09	299,111	285,421	228,992	218,098	53,141	51,509	300,299	286,706	229,243	218,712	53,480	51,813
10-14	273,766	259,762	208,007	197,309	48,205	45,951	279,059	265,097	211,171	200,679	49,385	47,289
15-19	262,800	247,049	198,387	184,880	48,555	46,572	265,736	251,022	200,129	187,386	48,678	46,829
20-24	239,670	229,761	182,045	171,959	42,708	42,446	236,495	229,971	179,536	171,909	42,436	42,489
25-29	257,767	256,477	197,222	191,828	43,625	45,446	249,960	252,921	190,865	188,512	43,131	45,128
30-34	324,746	330,775	255,403	253,980	48,321	53,572	312,778	321,953	244,776	244,579	47,202	53,132
35-39	358,311	365,304	288,294	288,130	48,766	54,025	358,663	367,572	286,469	287,844	49,925	55,202
40-44	322,606	338,822	263,033	270,347	40,337	47,123	332,372	349,668	269,680	277,799	42,507	48,896
45-49	275,844	291,877	226,778	233,381	32,834	41,036	278,520	295,524	228,241	235,327	33,428	41,776
50-54	236,728	251,004	198,558	206,191	25,268	31,964	241,577	256,867	201,692	209,726	26,166	33,233
55-59	177,966	193,606	147,665	157,062	21,108	27,585	188,485	205,153	157,010	166,952	21,648	28,407
60-64	147,282	163,839	124,308	135,501	16,667	21,661	148,549	164,910	124,451	135,466	17,096	22,424
65-69	141,685	172,488	123,164	147,827	14,659	19,476	137,035	166,641	118,076	141,430	14,637	19,744
70-74	120,425	161,805	107,936	143,687	9,580	14,059	121,857	161,065	108,464	142,141	10,208	14,489
75-79	94,772	140,024	86,391	126,547	6,533	10,761	95,797	140,082	86,809	126,100	6,823	10,899
80-84	54,658	96,058	50,347	87,985	3,242	6,590	56,523	98,327	51,703	90,026	3,529	6,583
85+	34,774	88,999	31,717	82,172	2,392	5,759	37,083	91,618	33,664	84,154	2,475	6,126
Total	3,907,778	4,145,071	3,134,553	3,303,020	556,464	613,578	3,921,695	4,173,847	3,131,948	3,308,831	563,301	623,184

	1999 All races Males	1999 All races Females	1999 White Males	1999 White Females	1999 Black Males	1999 Black Females
00-04	277,556	265,707	205,572	195,527	50,149	48,742
05-09	299,368	285,834	227,997	217,486	53,185	51,479
10-14	286,976	272,615	216,666	205,850	50,899	48,977
15-19	266,981	252,339	201,042	188,421	48,302	46,503
20-24	237,725	230,614	179,724	171,765	43,066	42,881
25-29	245,133	248,195	185,765	183,867	42,395	44,317
30-34	301,979	311,200	234,551	234,813	46,392	51,526
35-39	358,437	367,369	284,417	286,248	50,597	55,625
40-44	341,280	358,425	275,735	283,788	44,259	50,336
45-49	284,514	301,582	232,897	239,982	34,091	42,280
50-54	249,547	265,443	207,501	215,549	27,505	34,653
55-59	195,381	212,631	163,041	173,006	21,835	29,096
60-64	150,914	167,410	125,531	136,571	17,676	23,249
65-69	133,867	162,734	114,486	137,066	14,612	19,878
70-74	121,817	158,980	107,710	139,433	10,724	14,837
75-79	97,476	141,420	88,183	127,061	6,935	11,011
80-84	58,476	100,124	53,372	91,556	3,717	6,685
85+	39,016	94,347	35,269	86,474	2,671	6,345
Total	3,946,443	4,196,969	3,139,459	3,314,463	569,010	628,420

Source: U.S. Census Bureau